

-C(=W)R⁶, wherein W represents an oxygen atom or a sulfur atom, and R⁶

represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group,

-NR⁷R⁸, wherein R⁷ and R⁸ are the same or different and

each represents a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic

group,

or R⁷ and R⁸ are combined together with the adjacent nitrogen

atom to form a substituted or unsubstituted heterocyclic

group,

-OR⁹, wherein R⁹ represents a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

-SR¹⁰, wherein R¹⁰ has the same meaning as that of the aforementioned

R⁹,

-NR¹¹R¹², wherein R¹¹ and R¹² are the same or different and each represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl,
a substituted or unsubstituted heterocyclic group,
-C(=O)R¹³, wherein R¹³ represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl,
a substituted or unsubstituted heterocyclic group,
-NR¹⁴R¹⁵, wherein R¹⁴ and R¹⁵ are the same or different and each
represents a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, or
R¹⁴ and R¹⁵ are combined together with the adjacent

nitrogen atom to form a substituted or unsubstituted
heterocyclic group,

-OR¹⁶, wherein R¹⁶ has the same meaning as that of the
aforementioned R⁹, or

-SR¹⁷, wherein R¹⁷ has the same meaning as that of the
aforementioned R⁹, or

R^{11} and R^{12} are combined together with the adjacent nitrogen atom to form
a substituted or unsubstituted heterocyclic group, or

$-SO_2R^{18}$, wherein R^{18} represents

a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, or

R^1 and R^2 are combined together with the adjacent nitrogen atom to form a
substituted or unsubstituted heterocyclic group,

R^3 represents

a hydrogen atom, or

$-C(=Z)R^{19}$, wherein Z represents an oxygen atom or a sulfur atom, and R^{19}

represents a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl,
a substituted or unsubstituted heterocyclic group, or

$-NR^{20}R^{21}$, wherein R^{20} and R^{21} are the same or different and each represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, or

R^{20} and R^{21} are combined together with the adjacent nitrogen atom to form
a substituted or unsubstituted heterocyclic group,

-OR²² wherein R^{22} represents

a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, or

-SR²³, wherein R^{23} has the same meaning as that of the aforementioned R^{22} ,

R^4 represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, and

R^5 represents

a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group, or

R^4 and R^5 are combined together to represent $-(CR^{25A}R^{25B})_{m1}Q(CR^{25C}R^{25D})_{m2}-$,

wherein

Q represents a single bond, or
a substituted or unsubstituted phenylene or cycloalkylene,

m1 and m2 are the same or different and each represents an integer of from 0 to 4, with the proviso that m1 and m2 are not 0 at the same time,

R^{25A} , R^{25B} , R^{25C} and R^{25D} are the same or different and each represents a hydrogen atom,

a halogen,

a substituted or unsubstituted lower alkyl,

$-OR^{26}$, wherein R^{26} represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl,

a substituted or unsubstituted heterocyclic group,

$-CONR^{27}R^{28}$, wherein R^{27} and R^{28} are the same or different and each represents

a hydrogen atom,

a substituted or unsubstituted lower alkyl,

a substituted or unsubstituted lower alkenyl,

a substituted or unsubstituted lower alkynyl,

a substituted or unsubstituted cycloalkyl,

a substituted or unsubstituted aryl, or

a substituted or unsubstituted heterocyclic group, or

R^{27} and R^{28} are combined together with the adjacent nitrogen atom to form a substituted or

unsubstituted heterocyclic group,

$-SO_2NR^{29}R^{30}$, wherein R^{29} and R^{30} have the same

meanings as those of the aforementioned R^{27} and

R^{28} , respectively, or

-COR³¹, wherein R³¹ represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl, or
a substituted or unsubstituted heterocyclic group,

-NR³²R³³, wherein R³² and R³³ are the same or different and each represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl,
a substituted or unsubstituted heterocyclic group,

-COR³⁴, wherein R³⁴ represents

a hydrogen atom,
a substituted or unsubstituted lower alkyl,
a substituted or unsubstituted lower alkenyl,
a substituted or unsubstituted lower alkynyl,
a substituted or unsubstituted cycloalkyl,
a substituted or unsubstituted aryl,
a substituted or unsubstituted heterocyclic group,
a substituted or unsubstituted lower alkoxy,
a substituted or unsubstituted aryloxy, amino,
a substituted or unsubstituted lower alkylamino,
a substituted or unsubstituted di-(lower alkyl)amino,
or a substituted or unsubstituted arylamino, or

-SO₂R³⁵, wherein R³⁵ represents
 a substituted or unsubstituted lower alkyl,
 a substituted or unsubstituted lower alkenyl,
 a substituted or unsubstituted lower alkynyl,
 a substituted or unsubstituted cycloalkyl,
 a substituted or unsubstituted aryl, or
 a substituted or unsubstituted heterocyclic group,
 or -COOR³⁶, wherein R³⁶ represents
 a hydrogen atom,
 a substituted or unsubstituted lower alkyl,
 a substituted or unsubstituted lower alkenyl,
 a substituted or unsubstituted lower alkynyl,
 a substituted or unsubstituted cycloalkyl,
 a substituted or unsubstituted aryl, or
 a substituted or unsubstituted heterocyclic group, or
 R^{25A} and R^{25B}, or R^{25C} and R^{25D} are combined together to represent
 an oxygen atom, and
 when m1 or m2 is an integer of 2 or above, any of R^{25A}, R^{25B}, R^{25C}
 and R^{25D} may be the same or different, and any two of R^{25A},
 R^{25B}, R^{25C} and R^{25D} which are bound to the adjacent two
 carbon atoms may be combined to form a bond.

2. (Withdrawn) The method according to claim 1, wherein R² is -C(=W)R⁶,
 wherein W and R⁶ have the same meanings as those mentioned above, respectively.

3. (Withdrawn) The method according to claim 2, wherein R⁶ is a substituted or
 unsubstituted lower alkyl.

4. (Withdrawn) The method according to claim 1, wherein R³ is -C(=Z)R¹⁹,
 wherein Z and R¹⁹ have the same meanings as those mentioned above, respectively.

5. (Withdrawn) The method according to claim 4, wherein R¹⁹ is a substituted or

unsubstituted lower alkyl.

6. (Withdrawn) The method according to claim 1, wherein R^5 is a substituted or unsubstituted aryl, or a substituted or unsubstituted aromatic heterocyclic group.

7. (Withdrawn) The method according to claim 1, wherein R^5 is a substituted or unsubstituted aryl.

8. (Withdrawn) The method according to claim 1, wherein R^4 is a substituted or unsubstituted lower alkyl, or $-(CH_2)_nNHSO_2R^{24}$, wherein n represents 1 or 2, and R^{24} represents a substituted or unsubstituted lower alkyl, a substituted or unsubstituted lower alkenyl, an amino, a lower alkylamino, or a di-(lower alkyl)amino.

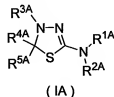
9. (Withdrawn) The method according to claim 1, wherein R^4 and R^5 are combined together to represent $-(CR^{25A}R^{25B})_{m1}Q(CR^{25C}R^{25D})_{m2}-$, wherein R^{25A} , R^{25B} , R^{25C} , R^{25D} , $m1$, $m2$, and Q have the same meanings as those mentioned above, respectively.

10. (Withdrawn) The method according to claim 9, wherein Q is a substituted or unsubstituted phenylene.

11. (Withdrawn) The method according to claim 1, wherein R^1 is a hydrogen atom.

12. (Withdrawn) The method according to claim 1, wherein W and Z are oxygen atoms.

13. (Currently Amended) A thiadiazoline derivative represented by the general formula (IA) or a pharmacologically acceptable salt thereof:



wherein R^{1A} represents a hydrogen atom,

R^{2A} represents

a hydrogen atom or

-COR^{6A}, wherein R^{6A} represents a substituted or unsubstituted lower alkyl, or

R^{1A} and R^{2A} are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted heterocyclic group,

R^{3A} represents -COR^{19A}, wherein R^{19A} represents a substituted or unsubstituted lower alkyl,

R^{4A} represents

-(CH₂)_pNR^{4AA}R^{4AB}, wherein

p represents 1 or 2, and

R^{4AA} and R^{4AB} are the same or different and each represents

a hydrogen atom,

a lower alkyl or cycloalkyl, with the proviso that when R^{2A} is -

COR^{6A}, R^{6A} and R^{19A} are tert-butyl and R^{5A} is phenyl, R^{4AA}

and R^{4AB} are not methyl at the same time,

-(CH₂)_pNR^{4AD}COR^{4AC}, wherein p has the same meaning as that mentioned

above, R^{4AC} represents a hydrogen atom, a lower alkyl, or a lower alkoxy,

and R^{4AD} represents a hydrogen atom or a lower alkyl, or

-(CH₂)_pNHSO₂R^{24A}, wherein p has the same meaning as that mentioned above,

R^{24A} represents

-(CH₂)_qNR^{24AA}R^{24AB}, wherein q represents an integer of from 0 to

5, and R^{24AA} and R^{24AB} are the same or different and each

represents a hydrogen atom, a substituted or unsubstituted

lower alkyl or cycloalkyl, with the proviso that when R^{2A} is

-COR^{6A}, R^{6A} is tert-butyl and R^{19A} is methyl or tert-butyl,

neither of R^{24AA} and R^{24AB} is methyl except when q=3, and

if one of R^{24AA} and R^{24AB} is a hydrogen atom, the other is

not ethyl or hydroxyethyl,

3-chloropropyl,

3-azidopropyl, or

lower alkenyl, with the proviso that when R^{2A} is $-\text{COR}^{6A}$, R^{6A} is tert-butyl and R^{19A} is methyl or tert-butyl, R^{24A} is not vinyl, and

R^{5A} represents a substituted or unsubstituted aryl or a substituted or unsubstituted aromatic heterocyclic group.

14. (Original) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{5A} is substituted or unsubstituted aryl.

15. (Original) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{5A} is phenyl.

16. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{2A} is COR^{6A} , and R^{6A} is unsubstituted lower alkyl.

17. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{2A} is COR^{6A} , and R^{6A} is tert-butyl.

18. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{19A} is unsubstituted lower alkyl.

19. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{19A} is tert-butyl.

20. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{4A} is $-(\text{CH}_2)_p\text{NR}^{4AA}\text{R}^{4AB}$, wherein p, R^{4AA} and R^{4AB} have the same meanings as those mentioned above, respectively.

21. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{4A} is $-(\text{CH}_2)_p\text{NR}^{4AD}\text{COR}^{4AC}$, wherein p, R^{4AC} and R^{4AD} have the same meanings as those mentioned above, respectively.

22. (Previously Presented) The thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13, wherein R^{4A} is $-(CH_2)_pNH SO_2 R^{24A}$, wherein p and R^{24A} have the same meanings as those mentioned above, respectively.

23. (Previously Presented) A medicament which comprises the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13 as an active ingredient.

24-25. (Canceled)

26. (Withdrawn) A method for inhibiting a mitotic kinesin Eg5 which comprises administering an effective amount of the thiadiazoline derivative or a pharmacologically acceptable salt thereof according to claim 13.

27.-28. (Canceled)